

## IN THE CLAIMS

Please amend claims 1, 8, 15 and 20 as set forth below.

The text of all pending claims, along with their current status, is set forth below:

1. (Currently amended) A color video data correction filtering system, comprising:  
a preset monitor profile that comprises monitor specific color characteristics and  
monitor specific input-output characteristics;  
a plurality of sets of gamut shifting arrays adapted to obtain the monitor specific color  
characteristics from the preset monitor profile to compensate for color point  
data of a plurality of constituent colors of a color monitor with each set of  
gamut shifting arrays corresponding to a multiplication look-up table (MLUT)  
comprising values that represent specific multiplication operations; and  
a plurality of non-linearization tables, each adapted to receive ~~an~~ a linear input from  
one of the sets of gamut shifting arrays and to obtain the monitor specific  
input-output characteristics from the preset monitor profile to compensate for  
non-linearities of the color monitor and produce output color video data  
compensated for non-linearities and color points of the color monitor.
2. (Canceled)
3. (Original) The color filtering system of claim 1, wherein the non-linear color  
space is an sRGB color space.
4. (Canceled)

5. (Previously presented) The color filtering system of claim 1, further comprising:  
a graphics controller coupled to the plurality sets of gamut shifting arrays, wherein  
compensation for color point data through utilization of the plurality of sets of  
gamut shifting arrays is performed at the full processing speed of the graphics  
controller.
6. (Original) The color filtering system of claim 1, wherein the input color video  
data is input from a website.
7. (Original) The color filtering system of claim 1, wherein the non-linearities of  
the color monitor comprise an input-output characteristic for each constituent color of the  
color monitor.
8. (Currently amended) A computer system, comprising:  
a processor;  
video memory coupled to the processor; and  
a color video data correction filtering system coupled to the processor, the system  
comprising:  
a preset monitor profile that comprises monitor specific color characteristics and  
monitor specific input-output characteristics;  
a plurality of sets of gamut shifting arrays adapted to obtain the monitor specific color  
characteristics from the preset monitor profile to compensate for color point  
data of a plurality of constituent colors of a color monitor with each preset set  
of pre-calculated gamut shifting arrays corresponding to a multiplication look-

up table (MLUT) comprising values that represent specific multiplication operations; and

a plurality of non-linearization tables, each adapted to receive ~~an~~ a linear input from one of the sets of gamut shifting arrays and to obtain the monitor specific input-output characteristics from the preset monitor profile to compensate for non-linearities of the color monitor and produce output color video data compensated for non-linearities and color point of the color monitor.

9. (Canceled)

10. (Original) The computer system of claim 8, wherein the plurality of constituent colors referenced to the non-linear color space are from a website.

11. (Original) The computer system of claim 8, wherein the non-linear color space is an sRGB color space.

12. (Previously presented) The computer system of claim 8, wherein the plurality of sets of gamut shifting arrays is stored in a plurality of look-up tables.

13. (Original) The computer system of claim 8, wherein the non-linearities of the color monitor comprise an input-output characteristic for each constituent color of the color monitor.

14. (Previously presented) The computer system of claim 8, further comprising:  
a graphics controller coupled to the plurality of sets of gamut shifting arrays, wherein  
compensation for color point data through utilization of the plurality of sets of  
gamut shifting arrays is performed at the full processing speed of the graphics  
controller.

15. (Currently amended) A method of color video data correction filtering,  
comprising the steps of:  
retrieving monitor specific color characteristics and monitor specific input-output  
characteristics from a preset monitor profile;  
compensating for color point linear data of a plurality of constituent colors of a color  
monitor by populating a plurality of gamut shifting arrays with the monitor  
specific color characteristics and applying the plurality of gamut shifting arrays  
to the color point linear data, each of the plurality of gamut shifting arrays  
corresponding to a multiplication look-up table (MLUT) comprising values  
that represent specific multiplication operations; and  
compensating the color linear point data after application of the plurality of gamut  
shifting arrays for non-linearities of the color monitor by populating a plurality  
of non-linearization tables with the input-output specific characteristics and  
applying the plurality of non-linearization tables to the color point linear data  
to produce output color video data compensated for non-linearities and color  
points of the color monitor.

16. (Original) The method of claim 15, wherein the input color video data  
referenced to the non-linear color space is from a website.

17. (Original) The method of claim 15, wherein the non-linear color space is an sRGB color space.

18. (Canceled)

19. (Original) The method of claim 15, wherein each of the steps of gamma decompensating, compensating using the plurality of pre-calculated gamut shifting arrays and compensating using the plurality of non-linearization tables is performed at a substantially full video rate.

20. (Currently amended) A color correction system, comprising:

a preset monitor profile that comprises monitor specific color characteristics and

monitor specific input-output characteristics;

a color filter that receives image data and produces color video data;

a color point correction system that receives the monitor specific color characteristics

from the preset monitor profile and applies the monitor specific color

characteristics to the color video data to produce color point linearity corrected

video data; and

a non-linearity correction system that receives the monitor specific input-output

characteristics from the preset monitor profile and applies the monitor specific

input-output characteristics to the color point linearity corrected video data to

produce non-linearity corrected video data.

21. (Previously Presented) The color correction system set forth in claim 20, wherein the color filter decompensates for non-linear RGB input based on a standard color image gamma function.

22. (Cancelled)

23. (Previously presented) The color correction system set forth in claim 20, wherein each of the plurality of MLUTs are loaded with pre-calculated values that represent specific multiplication operations.

24. (Previously Presented) The color correction system set forth in claim 20, wherein each of the plurality of MLUTs comprises pre-calculated RGB component outputs for each of 256 intensities of each primary color.

25. (Previously Presented) The color correction system set forth in claim 20, wherein the non-linearity correction system comprises a set of non-linearization color look-up tables (CLUTs).